U.S. DEPARTMENT OF ENERGY Office of Electricity Delivery and Energy Reliability

Infrastructure Security and Energy Restoration

ENERGY ASSURANCE DAILY

Monday Evening, November 30, 2015

Electricity

Winter Storm Knocks Out Power to Over 183,000 Customers in Oklahoma November 27–28

A weather system containing freezing rain moved over western Oklahoma on Friday and continued to linger into Sunday, knocking out power to 183,306 customers. As of 3:30 p.m. EST Monday, 55,752 customers remained without power. Oklahoma Gas & Electric (OG&E), the hardest hit utility with 150,000 customers without power, said most power should be restored by Wednesday night. Public Service Company of Oklahoma (PSO), which reported 10,345 customers without power, said damage to its electric system was significant with over 200 utility poles taken down by ice and wind. PSO said the majority of customers should have power restored by Tuesday. The utilities warned new outages may occur as ice begins to melt and fall from structures, including power lines.

Oklahoma Customer Power Outages November 27–30, 2015				
Electric Utility	State	Peak	Latest Reported	
Oklahoma Gas & Electric (OG&E)	OK	150,000	51,320	
Cimarron Electric	OK	15,961	2,056	
Public Service Company of Oklahoma (PSO)	OK	10,345	1,726	
Edmond Electric	OK	7,000	650	
TOTAL*		183,306	55,752	

^{*}Total outages represent only electric utilities listed in this table.

Sources:

https://oge.com/wps/portal/oge/outages/systemwatch/

https://twitter.com/OGandE

https://oge.com/wps/wcm/connect/85c4d82a-806b-4a76-a658-

8a7b53f962ad/ETR+Map+2.pdf?MOD=AJPERES&CACHEID=85c4d82a-806b-4a76-a658-8a7b53f962ad

https://www.psoklahoma.com/outages/details.aspx?stormName=Thanksgiving+Weekend+Ice+Storm+in+Western+

Oklahoma

https://www.psoklahoma.com/outages/outageMap.aspx

https://ebill.cimarronelectric.com/oms/outageMap

https://twitter.com/cityofedmond

https://www.facebook.com/coedmond/posts/10153881670188777

http://www.news9.com/story/30619767/thousands-without-power-in-ok

http://www.newson6.com/story/30624006/more-than-71000-remain-without-power-after-oklahoma-storm

Update: Progress Energy's 710 MW Robinson Nuclear Unit 2 in South Carolina Restarts November 29, Ramps Up to Full Power by November 30

The unit shut from full power on November 17.

http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2015/

Exelon's 850 MW Dresden Nuclear Unit 3 in Illinois Shut by November 30

On the morning of November 29 the unit was operating at full power.

http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2015/

FPL's 510 MW Point Beach Nuclear Unit 1 in Wisconsin Shut by November 29

The unit shut from full power due to a generator lockout after a voltage regulator malfunction.

http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2015/

http://www.nrc.gov/reading-rm/doc-collections/event-status/event/2015/20151130en.html

Entergy's 966 MW River Bend Nuclear Unit 1 in Louisiana Shut by November 28

The unit shut from full power on November 27 following the loss of a switchyard electrical breaker. http://www.nrc.gov/reading-rm/doc-collections/event-status/reactor-status/2015/ http://www.nrc.gov/reading-rm/doc-collections/event-status/event/2015/20151130en.html Reuters, 10:33 November 30, 2015

Energia de Baja's 180 MW Lr1 Gas-fired Unit in California Shut by November 28

The unit entered an unplanned outage.

http://content.caiso.com/unitstatus/data/unitstatus201511281515.html

Update: Abengoa's 275 MW Mojave Solar Unit in California Returns to Service by November 27

The unit returned from an unplanned curtailment of 115 MW that began on November 26. http://content.caiso.com/unitstatus/data/unitstatus201511271515.html

NextEra Energy Resources to Sell 2,988 MW of Fossil Generating Assets in Texas to Energy Future Holdings Affiliate

NextEra Energy Resources, LLC on November 27 announced that one of its subsidiaries, La Frontera Ventures LLC, entered into an agreement to sell its ownership interest in its Forney and Lamar generating assets to an affiliate of Energy Future Holdings (EFH). The transaction includes the 1,912 MW Forney Energy Center, a natural gas-fired facility located in Forney, Texas, that began commercial operation in 2003 and the 1,076 MW Lamar Energy Center, a natural gas-fired facility located in Paris, Texas, that began commercial operation in 2000. A NextEra Energy Resources' affiliate will continue to operate both of the facilities included in the sale for an initial period of up to one year. The transaction is expected to close in the first quarter of 2016, pending the receipt of necessary regulatory approvals and satisfaction of other customary closing conditions.

 $\underline{http://www.nexteraenergyresources.com/news/contents/2015/112715.shtml}$

Enbridge Acquires 103 MW New Creek Wind Project in West Virginia

Enbridge Inc. on November 25 announced the acquisition of a 100 percent interest in the 103 MW New Creek Wind Project, from EverPower Wind Holdings, LLC. Located in Grant County, West Virginia, New Creek Wind will comprise 49 Gamesa G97/G90 turbines and is targeted to be in service in December 2016. The project was developed by EverPower Wind Holdings LLC. The project is backed by renewable energy credit (REC) sales and off take agreements with fixed pricing through mid-and-long-term contracts. http://www.enbridge.com/MediaCentre/News.aspx?yearTab=en2015&id=2005972

Southern Company Subsidiary Acquires 157 MW Roserock Project in Texas

Southern Company subsidiary Southern Power today announced the acquisition of a controlling interest in the 157 MW Roserock solar facility—the company's first solar project in Texas—from Recurrent Energy. The project, currently under construction, is expected to enter commercial operation in the fourth quarter of 2016. The electricity and associated renewable energy credits generated by the facility will be sold under a 20-year power purchase agreement with Austin Energy.

http://www.southerncompany.com/news/2015-11-30-spc-roserock.cshtml

Petroleum

PBF Reports Flash Fire, Emissions at Its 190,000 b/d Delaware City, Delaware Refinery November 29

A flash fire broke out in the alkylation unit at PBF Energy Inc's Delaware City, Delaware, refinery on Sunday, according to a fire department spokesman. The Delaware City fire department said the fire was handled internally by the company but that the department transported one person with minor burns to a local hospital, according to a department spokesman. The company also reported emissions on Sunday.

Reuters, 10:15 November 30, 2015

Reuters, 6:19 November 30, 2015

ExxonMobil Says No Explosion at Its 238,600 b/d Joliet, Illinois Refinery November 26

ExxonMobil Corp said there was no explosion on Thursday at its Joliet, Illinois, refinery, contrary to multiple messages across social media platforms. An ExxonMobil spokeswoman said something was felt/heard about 20 miles east of the refinery but refinery operations were 100 percent normal. A spokeswoman for the Illinois Emergency Management Agency said it had received no reports of an explosion in the state. Reuters, 2:42 November 26, 2015

Phillips 66 Reports Process Upset at Its 336,000 b/d Wood River, Illinois Refinery November 26

Phillips 66 reported a process upset that led to flaring at its Wood River, Illinois refinery on Thursday, according to a filing with the Illinois Emergency Management Agency.

Reuters, 10:01 November 26, 2015

HollyFrontier Reports Flaring at Its 85,000 b/d Tulsa West, Oklahoma Refinery November 18, 20, 22

HollyFrontier Corp reported excess hydrogen sulfide to the number 2 alkylation flare on November 18, 20, and 22, according to a filing with the Oklahoma Department of Environmental Quality.

Reuters, 12:08 November 25, 2015

HollyFrontier Reports Emissions at Its 70,300 b/d Tulsa East, Oklahoma Refinery November 20, 22, 23

HollyFrontier Corp reported excess carbon monoxide from the fluid catalytic fracturing unit November 20, 22, and 23, according to a filing with the Oklahoma Department of Environmental Quality.

Reuters, 12:15 November 25, 2015

Valero Reports Shutdown, Startup at Its 86,000 b/d Ardmore, Oklahoma Refinery November 24

Valero Energy Corp reported the startup and excess nitrogen oxides from the hydrocracker process heater on November 24. The company also reported the shutdown and excess carbon monoxide from the fluid catalytic cracking unit flue gas scrubber on November 22.

Reuters, 12:04 November 25, 2015

Phillips 66 Reports Emissions at Its 146,000 b/d Borger, Texas Refinery November 27

Phillips 66 reported sulfur dioxide emissions at its Borger, Texas refinery, November 27, according to a filing with the Texas Commission on Environmental Quality.

Reuters, 2:25 November 27, 2015

Shell Reports Unit Startup at Its Scotford, Alberta Facility November 25

Royal Dutch Shell reported unit startup at its Scotford, Alberta facility, according to a community information line. The Scotford facility houses a 100,000 b/d refinery and a 255,000 b/d oil sands upgrader. Reuters, 3:35 November 25, 2015

Tesoro Confirms Unplanned Work at Its 251,000 b/d Carson, California Refinery November 30

Tesoro Corp. on Monday confirmed unplanned maintenance was underway at the Carson portion of its refinery near Los Angeles. The refinery last week completed separate unplanned work at an unspecified unit on that part of the facility.

Reuters, 11:54 November 30, 2015

South Dakota Regulators to Make Permit Decision on Energy Transfer's 450,000 b/d Dakota Access Pipeline November 30

South Dakota regulators today are expected to decide whether to grant a construction permit for a pipeline that will cross through the state as it carries oil from North Dakota to Illinois. The 1,130-mile Dakota Access Pipeline proposed by Energy Transfer Partners would move at least 450,000 b/d from the Bakken oil patch in western North Dakota through South Dakota and Iowa to an existing pipeline in Patoka, Illinois, where shippers can access Midwest and Gulf Coast markets.

 $\frac{http://www.pennenergy.com/articles/pennenergy/2015/11/south-dakota-regulators-to-decide-on-dakota-access-oil-pipeline.html}{}$

Canadian Crude-By-Rail Exports Rebound 38 Percent in Third Quarter

Canadian exports of crude by rail surged 38 percent in the third quarter of 2015, according to data released on Wednesday, as wider price differentials improved the economics of shipping oil on tank cars to markets and refineries in the U.S. Canada's National Energy Board said the country exported 116,000 b/d of crude oil in the three months ending September 30, up from 84,000 b/d in the second quarter. http://www.downstreamtoday.com/news/article.aspx?a_id=50088

LOOP Seeks Commitments for Proposed Crude Oil Vessel Loading Services

The Louisiana Offshore Oil Port LLC (LOOP) is seeking commitments from prospective shippers to utilize its proposed marine vessel crude oil loading services. The new services would provide connecting logistics from LOOP's Clovelly Hub in Galliano, Louisiana, to its Deepwater Port, 17 miles offshore of Port Fourchon, Louisiana. The marine vessel loading services would include two mooring points with capacity to load a vessel each day. Currently, LOOP's Deepwater Port has the capability of offloading these same marine vessels and moving crude oil from the Port to the Hub. The proposed marine vessel loading services would be scheduled to begin service in 2018. http://www.loopllc.com/Announcements/Announcements/LOOP-LLC-seeks-commitments-for-proposed-crude-oil-

Natural Gas

Update: Tennessee Gas Pipeline Lifts Force Majeure for System near Sussex, New Jersey November 28

Kinder Morgan's Tennessee Gas Pipeline (TGP) Company LLC on Saturday lifted force majeure for MLV 325-1 to 326-1 (segment 321 FH) near Sussex, New Jersey. It had declared force majeure on that segment on November 24. The roughly 11,900-mile Tennessee Gas Pipeline transports natural gas from Louisiana, the Gulf of Mexico and south Texas to the northeast section of the U.S., including New York City and Boston. http://pipeline2.kindermorgan.com/Notices/NoticeDetail.aspx?code=TGP¬c_nbr=357802&date=11/30/2015&subject=¬c_type=-1¬c_sub_type=-1¬c_ind=C">http://pipeline2.kindermorgan.com/Notices/NoticeDetail.aspx?code=TGP¬c_nbr=357802&date=11/30/2015&subject=¬c_type=-1¬c_sub_type=-1¬c_ind=C">http://pipeline2.kindermorgan.com/Notices/NoticeDetail.aspx?code=TGP¬c_nbr=357802&date=11/30/2015&subject=¬c_type=-1¬c_sub_

Enbridge Reports AGI Offline at Its Tilden Gas Plant in Texas November 29

Enbridge reported processing equipment malfunctioned causing associated pumps to fault. This resulted in the acid gas injector (AGI) going offline. All gas was routed to the flare to curtail emissions. Processing and flow rates were adjusted as needed to minimize downtime and flare duration. The plant instrumentation was being reviewed to ascertain the cause for this disturbance.

http://www2.tceq.texas.gov/oce/eer/index.cfm?fuseaction=main.getDetails&target=223489

Regency Reports AGI Shut at Its 290 MMcf/d Waha Gas Plant in Texas November 28

Regency reported the acid gas injector (AGI) compressor shut on low suction pressure due to process issues. The plant was lined out and the AGI compressor was reset and restarted.

http://www2.tceq.texas.gov/oce/eer/index.cfm?fuseaction=main.getDetails&target=223474

Southern Union Reports Compressor Shut at Its 140 MMcf/d Keystone Gas Plant in Texas November 27

Southern Union reported compressor C-24 went down for second stage discharge pressure high intermittently throughout the day. Mechanics were called out to review and found a cracked piston. Gas was backed out to try and reduce flaring while the unit was being repaired.

http://www2.tceq.texas.gov/oce/eer/index.cfm?fuseaction=main.getDetails&target=223476

Other News

Solar Panel Copper Theft Conspiracy Broken Up in California

Two suspects were arrested November 24 for their involvement in an alleged scheme to steal nearly 1,000 pounds of copper wire from solar panels on four installations November 17–18 in Kettleman City. The total amount of damage to the solar panels was an estimated \$1 million.

http://hanfordsentinel.com/news/local/alleged-copper-theft-conspiracy-brokenup-in-kettleman-city/article 6206497c-a7f1-56f2-8c61-fd2a165ceb07.html

Coal Railroad Plans on Hold Due to Mine Permitting Delays on Montana-Wyoming Border

Plans to build a \$400 million railroad to haul coal from a proposed mine on the Montana-Wyoming border were put on indefinite hold November 25 because of delays in obtaining a mining permit and a weakening coal market, officials said. The Tongue River Railroad Co. requested that the Surface Transportation Board suspend the permitting process for the 42-mile line that would run from the proposed Otter Creek Mine in Powder River Basin to Colstrip, Montana. From there, coal trains would connect with existing railways to U.S. markets and West Coast ports for export, according to the company's preferred route. The Tongue River Railroad Co. is jointly owned by BNSF Railway, Otter Creek mine owner Arch Coal Inc., and TRRC Financing. A statement announcing the move said the railroad company believed production at the Otter Creek mine might start by January 2017, but with mine permitting delays and near-term market weakness, that timeline now appears unachievable. A BNSF Railway spokesman said the company plans to renew the application once the Montana Department of Environmental Quality has issued a mine permit for Otter Creek, and after any subsequent lawsuits are resolved. Reuters, 7:31 November 25, 2015

International News

Venezuela's PDVSA Says Port Activity 'Absolutely Normal'

Venezuela's state oil company PDVSA on November 25 said exports and imports at its Caribbean ports and terminals were normal despite reports some ship owners and oil providers were refusing to unload cargo until payments were made. According to sources and vessel tracking data, more than a dozen oil tankers were waiting this week to discharge at Venezuelan ports until payments were made due to the end of credit arrangements since the oil price fall.

http://www.downstreamtoday.com/news/article.aspx?a_id=50106

Energy Prices

U.S. Oil and Gas Prices November 30, 2015				
	Today	Week Ago	Year Ago	
CRUDE OIL West Texas Intermediate U.S. \$/Barrel	40.38	39.22	73.88	
NATURAL GAS Henry Hub \$/Million Btu	2.06	2.16	4.13	

Source: Reuters

Links

This Week in Petroleum from the U.S. Energy Information Administration (EIA) http://www.eia.gov/oog/info/twip/twip.asp Updated every Wednesday.

Weekly Petroleum Status Report from EIA

http://www.eia.gov/oil_gas/petroleum/data_publications/weekly_petroleum_status_report/wpsr.html Updated after 10:30 AM & 1:00 PM ET every Wednesday.

Natural Gas Weekly Update from EIA http://www.eia.gov/oog/info/ngw/ngupdate.asp

Updated after 2:00 PM ET every Thursday.

ENERGY ASSURANCE DAILY

http://www.oe.netl.doe.gov/ead.aspx

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